PRELIMINARY REPORT ON TORNADOES IN THE UNITED STATES DURING 1934

By R. J. MARTIN

[Weather Bureau, Washington, January 28, 1935]

In keeping with the custom of recent years, a preliminary statement of loss of life and property damage by windstorms is here included in the December issue of the REVIEW. A final and more detailed study will appear in the report of the Chief of the Weather Bureau for the year 1934–35. Practically all the information given in this summary is abstracted from the monthly tables of "Severe Local Storms", which are compiled from the reports of many observers and various section directors of the Bureau. While it is thought the figures given are substantially correct, it must be remembered that all are subject to change after the final study mentioned above.

June, with 30 (possibly 34) tornadoes, was the month with the greatest number of such storms; but the total loss of life, 4, was less than in February, May, or October. July, with 17 (possibly 19) storms, was second, while February and November each had 12 tornadoes. The greatest loss of life occurred in February, when 20 persons were killed; 12 deaths were reported in Mississippi, caused by the two storms of the 25th, which are described on page 59, February, 1934, MONTHLY WEATHER REVIEW. Tornadoes caused the death of 8 persons during May, and 5 members of a C. C. C. camp were killed near Marysville, Mo., on the afternoon of October 23; several other deaths were caused by tornadic winds during May and October, including 5 persons who were burned to death in Laurel County, Ky., on the night of October 31.

June, with estimated tornado or tornadic wind damage of over $1,448,000, was also the month of greatest property loss. The second highest figure was $1,035,000 in October; over $900,000 of this was caused by the Marysville, Mo., storm (mentioned above) over a path 14 miles long, and 300 to 400 feet wide. The July storms resulted in losses of more than $955,600, most of which occurred on the 10th, at Jacksonville, Ill., and vicinity.

Tornadoes occurred without loss of life in March, April, July, and September. A child was fatally injured at Pensacola, Fla., on January 4, the only tornado death of that month. August also had one fatality; a man was killed in Wisconsin when his wagon was overturned by a tornadic wind. No tornadoes were reported in December.

The total number of tornadoes during the year, approximately 114, was 146 less than in the preceding year, and the least since 1931, when the total was 94. During March and May of 1933, 150 tornadoes occurred; the total for the corresponding months of 1934 was less than 30, even when tornadic winds and possible tornadoes are included. The total number of deaths resulting from the 1934 storms was 45, which is the least since 1931 (when only 36 deaths were caused by tornadoes) and the second lowest since 1916. Other than the Missouri and Mississippi storms mentioned above there were no unusually severe tornadoes during 1934, and both of these have been greatly exceeded in other years. In March of 1925, 689 deaths resulted from a single tornado, while on September 29, 1927, a tornado caused property damage in Missouri estimated at $25,000,000.

If further study shows the storms listed in the table of tornadic winds to be true tornadoes, the 1934 sums will be 140 tornadoes, 45 deaths, and property losses exceeding $5,713,300.

TORNADOES AND PROBABLE TORNADOES

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Number	4	12	3	5	13	30	17	7	7	3	13	0	114
Deaths	1	20	0	0	8	2	0	0	0	5	4	----	40
Damage [1]	[2] 55	[2] 602	156.3	[2] 7	273	1,425	159.6	[2] 23	[2] 48	910	174.2	----	3,833.1

TORNADIC WINDS AND POSSIBLE TORNADOES [3]

Number	0	0	4	5	6	4	2	1	2	1	1	0	26
Deaths	----	----	0	0	1	2	0	1	0	1	0	----	5
Damage [1]	----	----	29	44.6	26.1	23	925	700	5.5	125	2	----	1,880.2

[1] In thousands of dollars.
[2] Additional damage occurred but no estimate secured.
[3] Some of these may not be classed as tornadoes in the final study.

THE WEATHER OF 1934 IN THE UNITED STATES

By R. J. MARTIN

[Weather Bureau, Washington, D. C., January 1935]

The widespread severe drought during the crop-growing season of 1934 was the outstanding feature of the year's weather. It began in the Northwest early in the spring, spread rapidly, and by the end of May had become the most extensive drought in the climatological history of the United States. In general by that date nearly three-fourths of the country was experiencing droughty conditions, which were most severe in the Ohio, central and upper Mississippi Valleys, the central and northern Plains, most Rocky Mountain sections, and the Great Basin. The drought is discussed in detail in the Report of the Chief of the Weather Bureau for the year 1933–34.

The year was abnormally warm nearly everywhere; only small areas in Michigan and North Carolina, and portions of New Jersey, New York, and New England averaged cooler than normal. The average for the entire year was 54.8°, giving a plus departure for the year of 2.5°. Precipitation was decidedly below normal; the deficiency, for all States, was 3.7 inches. State deficiencies were greatest in the Ohio Valley, and the central Plains States, and ranged from 11.37 inches in Ohio to 0.04 inch in New Jersey; 14 States had deficiencies of more than 5 inches. Ten of the forty-two climatic sections were wetter than normal, with excesses ranging from 0.20 inch in Oregon to 5.29 inches in Maryland-Delaware.

More temperature records were broken in 1934 than in any previous year of Weather Bureau history. For example, every station in Iowa established new high records for May except Glenwood, where the previous record was equaled; on the 31st every station in the State had a maximum of 100° or above. At many points in the interior valleys and the Northwest the May averages were higher than the June normal, and most central States reported one or more hottest months of record during the year. A few minimum temperature records (mostly seasonal) were broken in 1934; and some unusually cold weather occurred in Florida on December 12 and 13.